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Candidate name

School name

Examination session (May or November)

May

Year

2015

Diploma Programme subject in which this extended essay is registered: Theatre

(For an extended essay in the area of languages, state the language and whether it is group 1 or group 2.)

Title of the extended essay:

The Conflict between Technology and
Conventionalism in Modern Theatre

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This declaration must be signed by the candidate; otherwise a mark of zero will be issued.

The extended essay I am submitting is my own work (apart from guidance allowed by the International Baccalaureate).

I have acknowledged each use of the words, graphics or ideas of another person, whether written, oral or visual.

I am aware that the word limit for all extended essays is 4000 words and that examiners are not required to read beyond this limit.

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Date:

18.12.2014

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Please comment, as appropriate, on the candidate's performance, the context in which the candidate undertook the research for the extended essay, any difficulties encountered and how these were overcome (see page 13 of the extended essay guide). The concluding interview (viva voce) may provide useful information. These comments can help the examiner award a level for criterion K (holistic judgment). Do not comment on any adverse personal circumstances that may have affected the candidate. If the amount of time spent with the candidate was zero, you must explain this, in particular how it was then possible to authenticate the essay as the candidate's own work. You may attach an additional sheet if there is insufficient space here.

Throughout his Extended Essay, [redacted] showed enthusiasm and growth in researching an unfamiliar topic. He approached me last year with goal of exploring tech in theatre, but was unsure how to turn it into an academic essay. [redacted] is very passionate about stage, computer, and film technology and spends much of his free time exploring and deepening his knowledge about tech. During our first meeting after deciding his focus, [redacted] brought many ideas of how he wanted to research and had a clear action plan for completing his work.

[redacted] showed notable independence and persistence with his research. He found that it was quite hard to find reliable resources to help him with his writing, so he had to be quite resourceful and look beyond the obvious.

In his Viva Voce [redacted] again showed his understanding of and interest in the topic. He spoke with poise and confidence and was able to clarify some issues with his Extended Essay that were not necessarily clear from his writing. He discussed the difficulty he had with trying to focus his research and coming up with an appropriate research question that would guide him in the writing process. When asked about the subject matter [redacted] was able to answer in an informed and confident manner.

This declaration must be signed by the supervisor; otherwise a mark of zero will be issued.

I have read the final version of the extended essay that will be submitted to the examiner.

To the best of my knowledge, the extended essay is the authentic work of the candidate.

As per the section entitled "Responsibilities of the Supervisor" in the EE guide, the recommended number of hours spent with candidates is between 3 and 5 hours. Schools will be contacted when the number of hours is left blank, or where 0 hours are stated and there lacks an explanation. Schools will also be contacted in the event that number of hours spent is significantly excessive compared to the recommendation.

I spent hours with the candidate discussing the progress of the extended essay.

Supervisor's signature: _____

Date: _____

17.12.2014

Assessment form (for examiner use only)

Candidate session number		
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Criteria	Achievement level					
	Examiner 1	maximum	Examiner 2	maximum	Examiner 3	
A research question	<input type="text" value="2"/>	2	<input type="text"/>	2	<input type="text"/>	
B introduction	<input type="text" value="2"/>	2	<input type="text"/>	2	<input type="text"/>	
C investigation	<input type="text" value="4"/>	4	<input type="text"/>	4	<input type="text"/>	
D knowledge and understanding	<input type="text" value="4"/>	4	<input type="text"/>	4	<input type="text"/>	
E reasoned argument	<input type="text" value="3"/>	4	<input type="text"/>	4	<input type="text"/>	
F analysis and evaluation	<input type="text" value="3"/>	4	<input type="text"/>	4	<input type="text"/>	
G use of subject language	<input type="text" value="4"/>	4	<input type="text"/>	4	<input type="text"/>	
H conclusion	<input type="text" value="2"/>	2	<input type="text"/>	2	<input type="text"/>	
I formal presentation	<input type="text" value="4"/>	4	<input type="text"/>	4	<input type="text"/>	
J abstract	<input type="text" value="2"/>	2	<input type="text"/>	2	<input type="text"/>	
K holistic judgment	<input type="text" value="4"/>	4	<input type="text"/>	4	<input type="text"/>	
Total out of 36	<input type="text" value="34"/>		<input type="text"/>		<input type="text"/>	

Name of examiner 1: Examiner number:

Name of examiner 2: Examiner number:

Name of examiner 3: Examiner number:

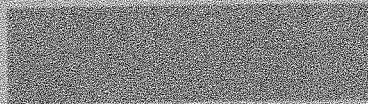
IB Assessment Centre use only: B:

IB Assessment Centre use only: A:

This EE is deceptively broad - once the candidate enters into the discussion of why girth & manhood examples the study really comes alive. From broad & appropriate references list the candidate picks the right examples.

Given that the EE focuses on modern theater it is a shame that Craig & other modernist designers & innovators have not been used as a starting point.

Still, a job well done, informative & confident.



The Conflict Between Technology and Conventionalism in Modern Theatre

Extended Essay

04. December 2014

Wordcount: 3384

The Conflict Between Technology and Conventionalism in Modern Theatre

Has, and in what way, the development of technology contributed to the quality of contemporary theatre productions and what are the implications of its expanded usage?

— GERMAN
EUROPEAN
VS ?

INARROW
DOWN
FURTHER

The Conflict Between Technology and Conventionalism in Modern Theatre

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The Conflict Between Technology and Conventionalism in Modern Theatre

1 Abstract:

This extended essay has dealt with the issues which arise over the utilization of modern technology in contemporary theatre as well as the attitudes towards it. The Question that has been covered is: Has, and in what way, the development of technology contributed to the quality of contemporary theatre productions and what are the implications of its expanded usage? One of the greatest difficulty was the definition of technology, or more specifically the distinction between what the general public perceives technology to be, or rather from which point onwards the technology is seen as foreign to theatre and what kind of technology is indisputably seen as part of theatre. This increased the emphasis on the public's perception on the matter and the developmental nature of the matter. In order to explore the different sides of the conflict several practitioners were studied, or even the Skype interviewed in the case of Jo Scott, and the, not necessarily always opposing opinions pitched against each other. One of the most valuable resources were specialist magazine articles, most notably of "American Theater". A workshop that I was able to participate in which was led by Jo Scott greatly helped me to develop and consolidate my already big interest in intermediality and technology in theatre. Furthermore it became more and more apparent that the main dispute in this field is not about the technology its self but more importantly on the way that it is used and by the outcome that is trying to be achieved through it.

The Conflict Between Technology and Conventionalism in Modern Theatre

2 Introduction:

The further the 21st Century advances, the bigger the role Technology plays in theatre productions. Has, and in what way, the development of technology contributed to the quality of contemporary theatre productions and what are the implications of its expanded usage? In respect to this essay, technology, as an encompassing term will be used in order to refer to the “new” technologies which are being used in theatre, be it electric lighting, speaker amplification, projections or live camera feeds, amongst others, additionally the history behind these will be examined. This development is viewed very critically by some, like Terry McCabe, who claim that the “soul” of traditional theatre will be lost through the over-mechanisation and reinterpretation of theatre, thus it loosing the charm that conventional performances in theatre embody. ✓

“The danger lies in how easy it is to have the audience's evening in the theatre to be about the boldness, and not about the play.”
-Terry McCabe¹

An often uttered compromise is that of the technology being the mean and not an end, so as to remain outside the centre of attention and to support the theatre/play. On the other hand, one must ask: Can technology, like intricate projections, which could combine visual and performing arts, itself become the central piece of the performance, and be considered, art from a certain point onwards? If so, from what point onwards does this apply, and are there any limitations to the extent of technology should be used in theatre, or should there be genres, authors or specific plays never be touched? ✓

“To threaten any deviations from a purist rendering of this [Referring to Beckett's Endgame] or any other play – to insist on strict adherence to each parenthesis of the published text – not only robs collaborating artists of their interpretive freedom but also threatens to turn the theatre into a waxworks.”
-Robert Brustein² ✓

¹ McCabe, Terry. *Mis-directing the Play: An Argument against Contemporary Theatre*. Chicago: I.R. Dee, 2001. Print.

² McCabe, Terry. *Mis-directing the Play: An Argument against Contemporary Theatre*. Chicago: I.R. Dee, 2001. Print.

3 Investigation:

3.1 OVERVIEW OF THE HISTORY THEATRE TECHNOLOGY:

✓ The usage of technology in Theatre is as old as theatre itself.³ The first documented form of Theatre dates back to approximately 700 B.C. and was performed by the ancient Greeks in Amphitheatres. Even back in those times the Greeks were able to construct theatres with modern acoustic capabilities which allowed for large audiences to be able to see, and hear the performance without the need for electronic amplification carrying the actors voices at an audible level as far as 60 metres.⁴ Placed in the context of time this is a highly impressive feat which would be considered a great achievement even nowadays. From this point onwards technology in theatres evolved into what it is today. The second milestone, and according to Jo Scott⁵, a UK theatre practitioner whose work centres around improvisation with technology and intermediality, the greatest influence of technology on theatre was the invention of electric light. Besides the flexibility of modern theatre lighting incorporating different colours, movements and intricate control mechanisms, electronic light, for the first time in history, made theatre truly independent of the weather and especially of daylight and time since, as of then, plays had never been

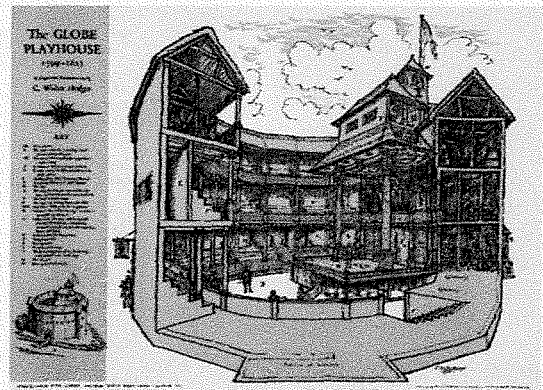


Figure 5.1

able to take place inside, due to the lack of available light in closed buildings. Even the Globe Theatre (See figure 5.1); which is often identified as one of the milestones of theatre buildings, is effectively open air albeit sheltering parts of the audience under roofs. The first theatre which used full electric lighting, and therefore was the

3 Scott, Joanne. Skype interview. 13 Aug. 2014. Dresden/London

4 Declercq N. F. & Dekeyser C. S. .A. *J. Acoust. Soc. Am.*, in press (2007).

5 Scott, Joanne. Skype interview. 13 Aug. 2014. Dresden/London

5.1 Hodges, Walter. "Hodge's conjectural Globe reconstruction." *Wikipedia*. Wikimedia Foundation, 1 Jan. 1958. Web. 18 Aug. 2014. <http://en.wikipedia.org/wiki/Globe_Theatre#mediaviewer/File:Hod%27s_conjectural_Globe_reconstruction.jpg>.

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first theatre which wasn't dependant on daylight, is the Savoy Theatre in Westminster London designed by C. J. Phipps and opened in 1881⁵. Music and the general reproduction of sound alongside theatre performances has always been an important part of theatre, with a chorus of 12-15 people being an indispensable component of the theatre plays in the Greek antiquity.⁶ Since then music has always played an important role in theatre, whether only accompanying the action on stage, supporting the atmosphere or being written specifically for these performances to musicals in which the musical fidelity of the performances reaches a paramount significance.

The newest development in theatre technology is, arguably, projections in combination with live video feeds of the stage which is dictated by the evolution of camera and projection technology. Recently real time motion tracking of actors on stage in combination with projections on stage are being explored, these open up whole new worlds of interaction between the actors, the audience and the projections around them. And the future? According to Jo Scott they will most likely be holographs on Stage.⁷

3.2 WHAT IS TECHNOLOGY AND IS IT REALLY NEW?

The thought that technology in theatre is a new emergence is a popular misconception of the public.⁸ Ever since theatre has existed, so has technology within it. The scepticism is aimed at the new types of technology as well as the development of that already existing. This is a phenomenon under no circumstance exclusive to the theatre world as there have always been conservative groups of people opposing the liberal development, especially of technology. Notably in a medium that has a very large and diverse target audience, changes that are made are a big risk, however they can equally represent a big chance to make a positive indent on the experience. Taking this into account, the way that we define technology will make a big difference

5 "History of the Savoy Theatre - Savoy Theatre." *Savoy Theatre*. savoytheatre.org.co.uk, n.d. Web. 18 Aug. 2014. <<http://savoytheatre.org.uk/history-of-the-savoy-theatre/>>.

6 Kienzle, Siegfried. *Reclams Schauspielführer*. 16. Aufl. mit 32 Bildtafeln. ed. Stuttgart: Philipp Reclam, 1983. Print.

7 Scott, Joanne. Skype interview. 13 Aug. 2014. Dresden/London

8 Scott, Joanne. Skype interview. 13 Aug. 2014. Dresden/London

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in the whole argument. Besides the definition of technology, the definition of theatre is increasingly becoming vague as new technologies and concepts are introduced. The lines between theatre performances and installations, for example, are crossed over frequently. The theatre production company *Punchdrunk*, for example, stages theatre pieces in large controlled environments through which the audience is able to move freely and choose which strand of the plot they want to follow. One of the key features that *Punchdrunk* describe their work as is "immersive".

"The physical freedom to explore the sensory and imaginative world of a Punchdrunk show without compulsion or explicit direction sets it apart from the standard practice of viewing theatre in unconventional locations. Although our work is necessarily structured from a practical and safety perspective, the non-linear narrative content coupled to the high degree of viewer freedom of choice make it a singularly intense and personal experience."

-Punchdrunk⁹

A lot of what *Punchdrunk* themselves say about their productions is also what would set apart an installation from a piece of theatre. Singularly the actors and the, albeit non-linear, plot set it apart from an installation. One additional aspect which might be argued is the interaction between the audience and the performers, however the amount of interactive installations is rapidly increasing, this is prevalently achieved through the development of technology and the increasing availability of those to performers. The development and change of everything around us seems inevitable and has always been there, nonetheless, things are, as time goes on, changing and advancing more rapidly. One of the crassest examples of this would be electronic computer processing power and storage capacities. Michio Kaku claims in his Book "Physics of the Future" that the average smart-phone nowadays has as much processing power as NASA cumulatively in 1969¹⁰. That's the power of NASA in the palm of your hand only 45 years later. To further emphasize this point; just recently

⁹ "Punchdrunk." *Punchdrunk*. N.p., n.d. Web. 19 Aug. 2014. <<http://punchdrunk.com/work-with-us/column/1>>.

¹⁰ Kaku, Michio. "Your cell phone has more computing power than NASA circa 1969." *Knopf Doubleday Your cell phone has more computing power than NASA circa 1969 Comments*. Knopf Doubleday, n.d. Web. 19 Aug. 2014. <<http://knopfdoubleday.com/2011/03/14/your-cell-phone/>>.

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the first 128GB Micro-SD card has made its way onto the market, just ten years ago, in 2004, the same thing happened, however with mere 128MB. That's an increase of 100 000% in only 10 years¹¹. So effectively, saying that the introduction of technology is a new thing in the context of the history of theatre is wrong, as even the Japanese were lamenting the increased implementation of stage tricks, *keren*, in the Kabuki theatre¹¹, however the rate at which things are changing and new practices in combination with technology emerge is certainly an unprecedented phenomenon of the current generation. ✓

3.3 THE OTHER SIDE OF THE ARGUMENT:

The Conventionalists, the likes of McCabe, naturally also have a point. Every argument has to have a counter-argument, otherwise it wouldn't be one in the first place. Directors and audiences alike claim that classic plays are "tainted" with technology and lose their original depth and can, under those conditions no longer convey their initial message¹². Critics argue that, especially projection, technology is too accessible, too easy to use and the risk of "*dwarf[ing] the actors, taking away from the 'theatre' feeling, and replacing it with a firework of sensory overload for the audience.*"¹³ This especially needs to be presented in the context of pre-recorded video playback on a large screen on stage alongside actors. In addition to this, "*projections in theatre might be seen as a fad which threatens the traditional values and ideals of theatre by replacing them with the qualities of a theme park.*"¹³ The practice of this has long since been frowned upon by many, deeming this kind of medium "lazy and too easy to use"¹⁴. ✓

11 Schischka, Benjamin . "SanDisk stellt weltweit größte microSD-Karte vor." *PC-WELT Online*. N.p., 24 Feb. 2014. Web. 19 Aug. 2014. <http://www.pcwelt.de/news/SanDisk_stellt_weltweit_groesste_microSD-Karte_vor-128_GB-8544155.html>.

11.1 Ernst, Earle. *The Kabuki Theatre*. New York: Oxford UP, 1956. Print.

12 BARBOUR, DAVID. "The Prevalence Of Projections." *American Theatre* 28.10 (2011): 28. *MAS Complete*. Web. 11 Apr. 2014.

13 BARBOUR, DAVID. "The Prevalence Of Projections." *American Theatre* 28.10 (2011): 28. *MAS Complete*. Web. 11 Apr. 2014.

13 BARBOUR, DAVID. "The Prevalence Of Projections." *American Theatre* 28.10 (2011): 28. *MAS Complete*. Web. 11 Apr. 2014.

14 BARBOUR, DAVID. "The Prevalence Of Projections." *American Theatre* 28.10 (2011): 28. *MAS Complete*. Web. 11 Apr. 2014.

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Contrary to popular belief the increase in usage of technology can not be equated with the consequences of the industrial revolution on the workforce, in the sense that automations in theatre are robbing people their jobs, as Charles Otte states: "*Leaps in technology create new jobs and make others redundant.*"^{14.1} According to Lawler video has a kind of perfection to it which is dangerous due to the fact that normal actors can hardly match it which is only natural if the amount of "trickery" behind videos and films is taken into account^{14.2}. Alongside the sensation of immediacy and personal connection the lack of perfection is, arguably, the most important factor which sets theatre apart from other forms of media like film, pictures and music, except for when it is performed live. This goes along very closely with how Jo Scott outlined her work flow and process she goes through especially choosing her equipment. She does not necessarily chose that which is most streamlined, which is least risky to go wrong, but rather with the pieces that she feels are right but also have a certain "clunkiness" to them which makes operating them a challenge and therefore ensuring the uniqueness of every single performance¹⁵. The live aspect of theatre as well as media that goes with it is incredibly important. If executed correctly an audience may return to a theatre performance several times and take away a unique experience every time. This organic interplay of actors on stage, the imperfections and relations with the actors create a tension in an audience similarly how live sports events do, this is what other kinds of media strive for but will never be able to mimic to an extent which could be determined equivalent to theatre.

*"There's something about being face to face and in direct contact
with the audience which defines the essence of theatre"*

- Jo Scott¹⁶

In Britain this is not only popular belief, but considered to be the law, as a theatre in Manchester was successfully sued over the lack of live musicians

14.1 LAWLER, MIKE. "The Technical Answer." *American Theatre* 31.1 (2014): 38. MAS Complete. Web. 22 May 2014.

14.2 LAWLER, MIKE. "The Technical Answer." *American Theatre* 31.1 (2014): 38. MAS Complete. Web. 22 May 2014.

15 Scott, Joanne. Skype interview. 13 Aug. 2014. Dresden/London

16 Scott, Joanne. Skype interview. 13 Aug. 2014. Dresden/London

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during the musical performance of *The Wizard of Oz*, with the prosecutor equating the performance to a live karaoke event.¹⁷

In many respects it can be argued that there is no such thing as an 'essential' theatre, it shifts and changes according to the people's interest and according to the societies developments, culturally and socially. In addition there is often a big misconception of conventional theatre, in Elizabethan times, for example, the actors usually only got one chance to rehearse their role before the performance. The perception of acting is dramatically skewed nowadays due to the amount of film and video material that the general public consumes on a daily basis in which the acting would be considered perfect, putting a lot of pressure on actors through the unrealistic expectations of the audience. ✓

3.4 THE DELICATE BALANCE:

Evidently most directors strive to find a balance between the conventional perception of theatre performances and that of the liberal contemporary avant-garde movements.

"It's not about the amount of technology that is used in theatre, but rather the way that it's used" - Jo Scott

To a certain extent the ends justify the means, which is also what Jo Scott believes to be the case with technology in theatres. Technology is not in opposition to theatre but rather should be viewed as an integral part of it and judged like all of the other components of a theatre production. It can be executed in a very "elegant" fashion but on the other hand it can seem just as redundant and clumsy.^{17.1} Technology shouldn't represent the cause for its use but rather be used as a consequence for the demands ✓

¹⁷ Service, Tom. "Can you have a musical without live music?." *theguardian.com*. Guardian News and Media, 8, July 2009. Web. 19 Aug. 2014. <<http://www.theguardian.com/music/tomserviceblog/2009/jul/07/classical-music-opera-musicals>>.

^{17.1} Scott, Joanne. Skype interview. 13 Aug. 2014. Dresden/London

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of a modern theatre production in terms of the message that it is trying to convey. An important step in using technology is taking a step back from the process and looking at the whole picture in order to decide if the technology that should be incorporated enhances the experience, and whether or not it is really necessary.

"I've seen work where I've thought: Well you've just thrown everything at that and it doesn't seem to me that anyone has just sat down and thought: do we really need that in terms of what we're doing or should we just play around with it and put it in anyway?" - Jo Scott¹⁸

Technology can, however, also become a responsive interactive organic element of a performance and work together with the "analogue" elements of theatre in Symbiosis to create a much more immersive experience for the audience. The line however between too much and too little is as undefinable as the spirit of theatre itself. The most important feature seems to be that it relates to the production, the atmosphere and the involved actors and through this creating something bigger that is alive, something that has depth to it and isn't just a canned image. In this sense technology can serve many purposes ranging from disruption over distortion, fragmentation and amplification to complementation of the play. Another important factor to take into account is that, through fundamental changes in our society, plays from the past will always be interpreted differently from how they were originally were. Under these circumstances technology represents plentiful and unique options that can aid a reinterpretation of plays and their themes in order to increase their relevance and appeal towards the audience. Purists would deny this but, as a fact, all forms of media that live longer than their intended audience will be reinterpreted by the society that consumes them. The core themes and issues might remain very similar, as the nature of humans has changed very little over the course of history, however there are a huge amount of sociological and environmental implications that have to be taken into account additionally. In the future the attitude and comprehension of the technology used on stage will certainly change shifting the fulcrum of the balance rendering today's "future" technology ordinary and opening up worlds of possibilities unheard

¹⁸ Scott, Joanne. Skype interview. 13 Aug. 2014. Dresden/London

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and thought of before. One thing that will not change is certainly the fact that vision is still the most important attribute for an artist, having the big picture in mind and then figuring out how to use the tools that they have access to in order for them to support the "bigger" Image at hand.¹⁹

it is interesting that
you do not mention
Craig?

3.5 TECHNOLOGY AS AN OPPORTUNITY:

To a certain extent technology in theatre can make theatre more competitive with films and cinema. This can be achieved through the creation of surreal worlds as well as the visual amplification of details on stage that might have gone unnoticed or unappreciated by the audience, such as characters emotions through close ups of faces projected onto canvasses of all kinds. In addition to this, live feeds enable a theatre production to break through the physical barriers of time and space by creating multiple iterations of the present as well as showing the past, and perhaps even the future²⁰. On the other hand theatre needs to continue its self innovation and strive to set itself apart from cinema, since it can do so many things very differently, similarly to when photography became accessible, painters did not stop painting but started to experiment and adopt other styles, especially breaking the rules that had existed until this point, theatre is doing the same by exploring new possibilities and techniques especially through the incorporation of technology. To a certain degree the use of technology can make a performance feel more alive through the emphasis of certain aspects of an actors performance, but not alone however. Anyone who has experience in theatre will be able to relate to the specific qualities of live performance, the raw reality which firmly takes hold of the viewer and doesn't let go until the play comes to its end. The knowledge of the relationship between all elements of a performance coming together in real time and creating a symbiotic experience that is bigger than the sum of its parts is what keeps theatre alive and makes it unique, this is what needs to be preserved and can not be lost in the future.

¹⁹ LAWLER, MIKE. "The Technical Answer." *American Theatre* 31.1 (2014): 38. MAS Complete. Web. 22 May 2014.

²⁰ Scott, Joanne. Skype interview. 13 Aug. 2014. Dresden/London

3.6 THE FUTURE:

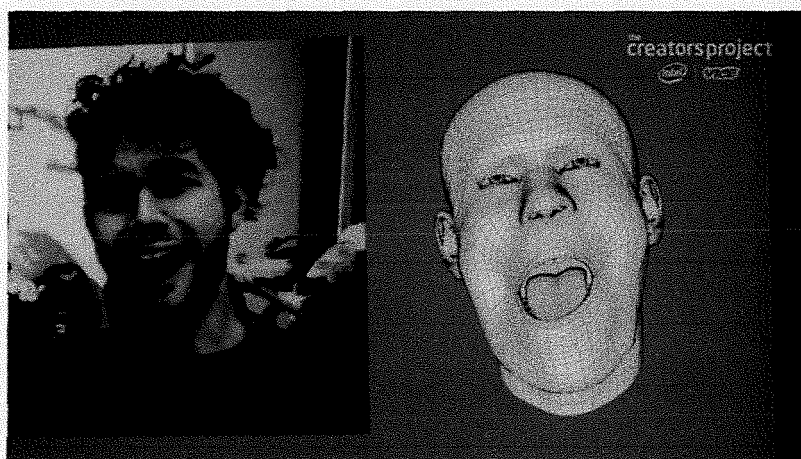


Dynamic projections on a building

Figure 21

Humans will always have the desire to gather in a space and witness a performance of someone else in a shared space and whatever form that takes. In addition to this, the industry is moving towards selling events and certain experiences rather than actual products which fits theatre very well.

Of course for this to happen theatre needs to keep innovating and driving the craft forwards, not settling for what was achieved but rather reaching for the future. Change is inevitable in order for theatre to persist due to the change of the audiences, the audiences interests and then having to appeal to them in a way that allows for theatre to develop itself. It is near impossible to predict the future developments of theatre but one piece of technology that will certainly introduce a big shift in the theatre world will be holographs in which objects or even people can virtually step out of the confines of screens and the conventional types of canvasses that we know of today and will move onto new dimensions.²³



Facial Recognition through cameras

Figure 22

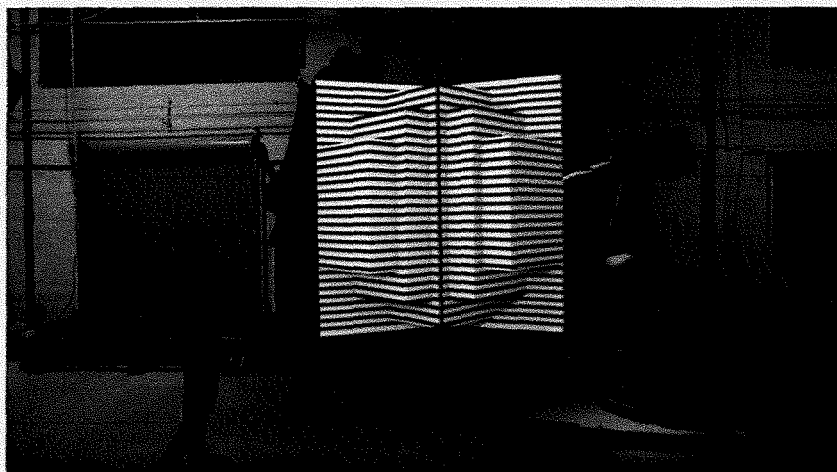
Facial recognition will be able to trigger complex animations in real time resulting in

²³ ASAI, NOBUMICHI. "OMOTE / REAL-TIME FACE TRACKING & PROJECTION MAPPING. in Vimeo Staff Picks." Vimeo. N.p., n.d. Web. 19 Aug. 2014. <<http://vimeo.com/channels/staffpicks/103>>

²⁴ Munkowitz, Bradley G. "Box." YouTube. YouTube, n.d. Web. 19 Aug. 2014. <<https://www.youtube.com/watch?v=LX6JcybgDFo>>.

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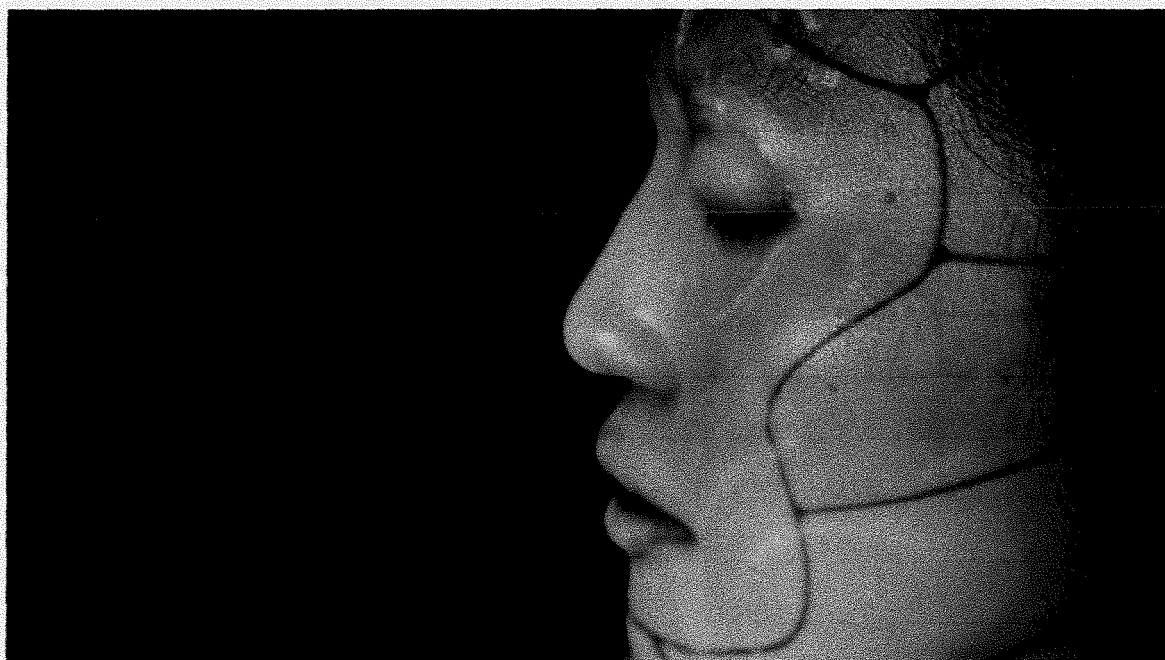
dynamic sets changing depending on thousands of variables in milliseconds.



"The Box" interactive mechanical movement and projection Figure 24

The foundations for these kinds of performances are being laid today with practitioners pushing the boundaries of the possible so far that what they can achieve seems like magic. Judging by the development of projection technology the

future of theatre is a white box with dynamic creatures textures and environment being created dynamically with by and around the actors.



Real time facial recognition, tracking and projection

Figure 23

4.0 CONCLUSION

The critique of technology in modern theatre productions is valid, the overuse can easily overshadow the distinct qualities that theatre has over other types of entertainment media and needs to be used with caution and respect for the effects that it can create. Nonetheless, the incorporation of technology into theatre productions also represents huge opportunities for theatre as a medium and opens up endless possibilities of creativity. The popular misconceptions of the conventional styles of theatre can be overcome and a more open-minded approach to the subject matter can be recommended. When used in consideration of the purpose and context of a play technology is a potent tool in theatre. The effects, atmospheres and worlds that can be created are very diverse and the options are virtually endless. The attitude towards the “new” technology will shift as time progresses and hopefully represent a positive influence on theatre as a whole, increasing its appeal to the audience whilst still remaining true to its core elements which other forms of media, like cinema, cannot replace or emulate. The development and incorporation of technology in theatre has had a very large impact on the development as theatre itself, ranging from performance spaces with exceptional acoustic qualities to electric lights as well as projections. It is difficult to determine to what extent technology is, and has always been a fundamental component of theatre, however this strongly depends on the definition of “technology”. Technology certainly has the potential to increase the quality of theatrical performances through various techniques, the final outcome however depends on the directors decisions and the way in which technology is used as a tool for the purpose of story telling.

5.0 BIBLIOGRAPHY:

- Asai, Nobumichi . "OMOTE / REAL-TIME FACE TRACKING & PROJECTION MAPPING. in Vimeo Staff Picks." Vimeo. N.p., n.d. Web. 19 Aug. 2014.
<<http://vimeo.com/channels/staffpicks/103>
- Ball, Philip. "Why the Greeks could hear plays from the back row." *Nature.com. Nature Publishing Group*, 23 Mar. 2007. Web. 18 Aug. 2014.
<<http://www.nature.com/news/2007/070319/full/news070319-16.html>>.
- Barbour, David. "The Prevalence Of Projections." *American Theatre* 28.10 (2011): 28. MAS Complete. Web. 11 Apr. 2014.
- Declercq N. F. & Dekeyser C. S ..A. J. *Acoust. Soc. Am.*, in press (2007).
- Ernst, Earle. *The Kabuki Theatre*. New York: Oxford UP, 1956. Print.
- "History of the Savoy Theatre - Savoy Theatre." Savoy Theatre. savoytheatre.org.co.uk, n.d. Web. 18 Aug. 2014.
<<http://savoytheatre.org.uk/history-of-the-savoy-theatre/>>.
- Hodges, Walter . "Hodge's conjectural Globe reconstruction." Wikipedia. Wikimedia Foundation, 1 Jan. 1958. Web. 18 Aug. 2014.
<http://en.wikipedia.org/wiki/Globe_Theatre#mediaviewer/File:Hodg%27s_conjectural_Globe_reconstruction.jpg>.
- Kaku, Michio. "Your cell phone has more computing power than NASA circa 1969." Knopf Doubleday Your cell phone has more computing power than NASA circa 1969 Comments. Knopf Doubleday, n.d. Web. 19 Aug. 2014.
<<http://knopfdoubleday.com/2011/03/14/your-cell-phone/>>.
- Kienzle, Siegfried. *Reclams Schauspielführer*. 16. Aufl. mit 32 Bildtafeln. ed. Stuttgart: Philipp Reclam, 1983. Print.
- Lawler, Mike. "The Technical Answer." *American Theatre* 31.1 (2014): 38. MAS Complete. Web. 22 May 2014.
- McCabe, Terry. *Mis-directing the Play: An Argument against Contemporary Theatre*. Chicago: I.R. Dee, 2001. Print.
- Munkowitz, Bradley G. "Box." YouTube. YouTube, n.d. Web. 19 Aug. 2014.

The Conflict Between Technology and Conventionalism in Modern Theatre

<<https://www.youtube.com/watch?v=IX6JcybgDFo>>.

Obscura, Digital. "Architecture as a Technicolor Canvas | 'Emergence' by Obscura Digital at the Exploratorium." YouTube. YouTube, n.d. Web. 19 Aug. 2014. <<https://www.youtube.com/watch?v=N2ZMH1XlxBI>>.

Paranormal Activity, Catfish. "Dance With Your Face." YouTube. YouTube, n.d. Web. 19 Aug. 2014. <https://www.youtube.com/watch?v=dplBh_rxoUc>.

"Punchdrunk." Punchdrunk. N.p., n.d. Web. 19 Aug. 2014.
<<http://punchdrunk.com/work-with-us/column/1>>.

Schischka, Benjamin . "SanDisk stellt weltweit größte microSD-Karte vor." PC-WELT Online. N.p., 24 Feb. 2014. Web. 19 Aug. 2014.
<http://www.pcwelt.de/news/SanDisk_stellt_weltweit_groesste_microSD-Karte_vor-128_GB-8544155.html>.

Scott, Joanne. Skype interview. 13 Aug. 2014. Dresden/London

Service, Tom. "Can you have a musical without live music?." theguardian.com. Guardian News and Media, 8 July 2009. Web. 19 Aug. 2014.
<<http://www.theguardian.com/music/tomserviceblog/2009/jul/07/classical-music-opera-musicals>>.

Pictorial sources:

Figure 23:

Asai, Nobumichi . "OMOTE / REAL-TIME FACE TRACKING & PROJECTION MAPPING. in Vimeo Staff Picks." Vimeo. N.p., n.d. Web. 19 Aug. 2014.
<<http://vimeo.com/channels/staffpicks/103>

Figure 5.1:

Hodges, Walter . "Hodge's conjectural Globe reconstruction." Wikipedia. Wikimedia Foundation, 1 Jan. 1958. Web. 18 Aug. 2014.
<http://en.wikipedia.org/wiki/Globe_Theatre#mediaviewer/File:Hodges%27s_conjectural_Globe_reconstruction.jpg>.

Figure 24:

Munkowitz, Bradley G. "Box." YouTube. YouTube, n.d. Web. 19 Aug. 2014.
<<https://www.youtube.com/watch?v=IX6JcybgDFo>>.

The Conflict Between Technology and Conventionalism in Modern Theatre

Figure 21:

Obscura, Digital. "Architecture as a Technicolor Canvas | 'Emergence' by Obscura Digital at the Exploratorium." YouTube. YouTube, n.d. Web. 19 Aug. 2014. <<https://www.youtube.com/watch?v=N2ZMH1XlxBI>>.

Figure 22:

Paranormal Activity, Catfish. "Dance With Your Face." YouTube. YouTube, n.d. Web. 19 Aug. 2014. <https://www.youtube.com/watch?v=dplBh_rxoUc>.

